

FORM 100-1390 (REV. 12/99)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTORNEY'S DOCKET NUMBER	
TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A FILING UNDER 35 U.S.C. 371				NREL 98-34CIP	
				U.S. APPLICATION NO. (If known, see 37 CFR 1.5)	
				10/088760	
INTERNATIONAL APPLICATION NO.		INTERNATIONAL FILING DATE		PRIORITY DATE CLAIMED	
PCT/US01/00430		21 JANUARY 2000		21 JANUARY 2000	
TITLE OF INVENTION					
DIRECT PRINTING OF THIN-FILM CONDUCTORS USING METAL-CHELATE INK.					
APPLICANT(S) FOR DO/EO/US					
Douglas L. Schulz et al.					
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:					
<ol style="list-style-type: none"><li>1. <input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a filing under 35 U.S.C. 371.</li><li>2. <input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a filing under 35 U.S.C. 371.</li><li>3. <input checked="" type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.</li><li>4. <input type="checkbox"/> The US has been elected by the expiration of 19 months from the priority date (Article 3 1).</li><li>5. <input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371(c)(2))<ol style="list-style-type: none"><li>a. <input type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li><li>b. <input type="checkbox"/> has been communicated by the International Bureau.</li><li>c. <input checked="" type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li></ol></li><li>6. <input checked="" type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371(c)(2))<ol style="list-style-type: none"><li>a. <input type="checkbox"/> is attached hereto.</li><li>b. <input checked="" type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li></ol></li><li>7. <input checked="" type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))<ol style="list-style-type: none"><li>a. <input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau).</li><li>b. <input type="checkbox"/> have been communicated by the International Bureau.</li><li>c. <input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li><li>d. <input checked="" type="checkbox"/> have not been made and will not be made.</li></ol></li><li>8. <input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).</li><li>9. <input checked="" type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).</li><li>10. <input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li></ol>					
Items 11 to 20 below concern document(s) or information included:					
<ol style="list-style-type: none"><li>11. <input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li><li>12. <input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li><li>13. <input type="checkbox"/> A FIRST preliminary amendment.</li><li>14. <input type="checkbox"/> A SECOND or SUBSEQUENT preliminary amendment.</li><li>15. <input type="checkbox"/> A substitute specification.</li><li>16. <input type="checkbox"/> A change of power of attorney and/or address letter.</li><li>17. <input type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.</li><li>18. <input type="checkbox"/> A second copy of the published international application under 35 U.S.C. 154(d)(4).</li><li>19. <input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li><li>20. <input checked="" type="checkbox"/> Other items or information:</li></ol>					
Post Card Receipt					

U.S. APPLICATION NO. <b>10/088769</b> INTERNATIONAL APPLICATION NO. <b>PCT/US01/00430</b>	ATTORNEY'S DOCKET NUMBER <b>NREL 98-34CIP</b>
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21. ☒ The following fees are submitted:

**BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)):**

Neither international preliminary examination fee (37 CFR 1.482)  
 nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO  
 and International Search Report not prepared by the EPO or JPO ----- **\$1000.00**

International preliminary examination fee (37 CFR 1.482) not paid to  
 USPTO but International Search Report prepared by the EPO or JPO ----- **\$860.00**

International preliminary examination fee (37 CFR 1.482) not paid to USPTO  
 but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ----- **\$710.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTO  
 but all claims did not satisfy provisions of PCT Article 33(l)-(4) ----- **\$690.00**

International preliminary examination fee (37 CFR 1.482) paid to USPTO  
 and all claims satisfied provisions of PCT Article 33(l)-(4) ----- **\$100.00**

**ENTER APPROPRIATE BASIC FEE AMOUNT**

**CALCULATIONS PTO USE ONLY**

<b>\$ 100.00</b>	
<b>\$</b>	

Surcharge of **\$130.00** for furnishing the oath or declaration later than ☐ 20 ☐ 30  
 months from the earliest claimed priority date (37 CFR 1.492(e)).

CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	25 -20 =	5	x <b>\$18.00</b> 9	\$ 45.00	
Independent claims	1 -3 =	0	x <b>\$80.00</b> 42	\$	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ <b>\$270.00</b>	\$ 0	

**TOTAL OF ABOVE CALCULATIONS = \$ 145.00**

☒ Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above  
 are reduced by 1/2. +

**SUBTOTAL - \$ 72.50**

Processing fee of **\$130.00** for furnishing the English translation later than ☐ 20 ☐ 30  
 months from the earliest claimed priority date (37 CFR 1.492(f)).

**TOTAL NATIONAL FEE = \$**

Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be  
 accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). **\$40.00** per property +

**TOTAL FEES ENCLOSED = \$ 72.50**

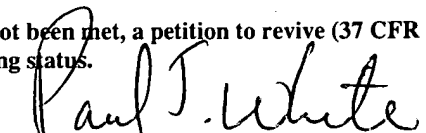
<b>Amount to be refunded:</b>	\$
<b>charged:</b>	<b>\$ 72.50</b>

- a. ☐ A check in the amount of \$ \_\_\_\_\_ to cover the above fees is enclosed.
- b. ☒ Please charge my Deposit Account No. 14-1460 in the amount of \$ 72.50 to cover the above fees.  
 A duplicate copy of this sheet is enclosed.
- c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any  
 overpayment to Deposit Account No. 14-1460 A duplicate copy of this sheet is enclosed.
- d. ☐ Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. **Credit card  
 information should not be included on this form.** Provide credit card information and authorization on PTO-2038.

**NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137 (a) or (b)) must be filed and granted to restore the application to pending status.**

SEND ALL CORRESPONDENCE TO:

Paul J. White  
 National Renewable Energy Laboratory  
 1617 Cole Blvd.  
 Golden, CO 80401

  
 SIGNATURE

Paul J. White  
 NAME

30,436  
 REGISTRATION NUMBER

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RE: International Patent Application of )  
Midwest Research Institute )  
International Application No.: PCT/US01/00430 )  
International Filing Date: 5 January 2000 ) Atty Docket No. NREL PCT/98-34CIP  
Entitled: Direct Printing of Thin-Film Conductors )  
Using Metal-Chelate Ink )

CERTIFICATE OF MAILING UNDER 37 CFR § 1.10

Express Mail Mailing Label No. EJ200220846US

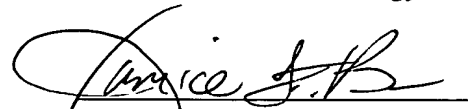
Date of Deposit 21 March 2002

I hereby certify that the following attached items:

- (1) Application [Specification 12 pgs, Claims 2 pgs, Abstract 1 pg]
- (2) 4 sheets of Drawings comprising Figure 1-4
- (3) Transmittal Letter to the United States Designated Elected Office (DO/EO/US) Concerning a Filing Under 35 USC 371 [2 pgs]
- (4) Combined Declaration and Power of Attorney [2 pgs]
- (5) Postcard receipt

have been deposited in the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and addressed to: The Assistant Commissioner for Patents, Box Patent Application, Washington, DC. 20231.

National Renewable Energy Laboratory

  
Janice F. Brown  
Patent Administrator

1617 Cole Boulevard  
Golden, CO 80401  
303/384-7576  
303/384-4799 (fax)